

**【Claims】**

1. A wired/wireless communication service system for providing a variety of services using the codes in association with a plurality of user devices that can be connected via a network in wired or wireless manner, comprising:
  - communication entity platforms for receiving code values from the outside to provide contents information corresponding to each code, and performing an interested party-related log record that provides user and contents information;
  - an operating agent platform for receiving the code values from the user devices and distributing code information to the respective communication entity platform ;
  - an on-line interested party module for registering resources corresponding to a variety of contents information in the communication entity platform and providing services such as contents to the user devices; and
  - an off-line interested party module for receiving a code needed to provide the services such as the contents, which is issued by the operating agent platform, and inserting the issued code into an off-line medium, so that a user can select information to be associated with the code.
2. A wired/wireless communication service system for providing a variety of services using the codes in association with a plurality of user devices that can be connected via a network in wired or wireless manner, comprising:
  - a communication entity platform for receiving code values from the user devices to provide contents information corresponding to each code, and performing an interested party-related log record that provides user and contents information;

an on-line interested party module for registering resources corresponding to a variety of contents information in the communication entity platform and providing services such as contents to the user devices; and

an off-line interested party module for receiving a code image needed to provide services such as the contents, which is issued by the communication entity platform, and inserting the issued code into an off-line medium, so that a user can select information to be associated with the code.

3. A wired/wireless communication service system for providing a variety of services using the codes in association with a plurality of user devices that can be connected via a network in wired or wireless manner, comprising:

a communication entity platform for receiving code values from the outside to provide contents information corresponding to each code, and performing an interested party-related log record that provides user and contents information;

an operating agent platform for receiving the code values from the user devices and distributing code information to the respective communication entity platforms;

an on-line interested party module for registering resources corresponding to a variety of contents information in the communication entity platform and providing services such as contents to the user devices; and

an off-line interested party module for receiving a code needed to provide services such as the contents, which is issued by the operating agent platform, and inserting the issued code into an off-line medium, so that a user can select information to be associated with the code,

wherein the user devices transmit the received code directly to a corresponding communication entity platform by referring to an IP address of the corresponding communication entity platform, which is written in an interface unit of the user devices, or to the corresponding communication entity platform through the operating agent platform, according to a previously set value.

4. The system for providing wired/wireless contents and information as in any one of claims 1 to 3,

wherein the code is one of UPC (Universal Product Code), EAN (European Article Numbering), code 39, Interleaved 2 of 5, code 93, code 128, Plessey code, code 11, one-dimensional barcode such as Standard 2 of 5 code and PDF-417 code, QR code, a two-dimensional barcode such as Data Matrix, and color code.

5. The system for providing wired/wireless contents and information as in any one of claims 1 to 3,

wherein the code is a code whose error is corrected and whose data capacity is extended, comprising:

a finding pattern region for demarcating a code region from the entire image;  
a timing pattern region for perceiving a data region from the entire code and perceiving the location of each cell in the data region; and  
the data region to which various data and decoding information of data itself are inputted.

6. The system for providing wired/wireless contents and information as in any one of claims 1 to 3,

wherein the user device associated with the system comprises:

a code input means for inputting the code values;

an interface unit for transmitting the code values received from the code input means to an operating agent or a communication entity platforms and receiving resources corresponding to the code; and

a mobile platform for reproducing a variety of contents and implementing an application that is implemented through the code.

7. The system for providing wired/wireless contents and information as in any one of claims 1 to 3,

wherein the user device associated with the system comprises:

a code input means for capturing a code image;

a decoding unit for extracting code values of the code image recognized in the code input means;

an interface unit for transmitting the code values extracted in the decoding unit to an operating agent or a communication entity platforms, and receiving resources corresponding to the code; and

a mobile platform for reproducing a variety of contents and implementing an application that is implemented through the code.

8. The system for providing wired/wireless contents and information as recited in claim 7,

wherein the code input means comprises one of a photo sensor, a scanner, a PC camera, a digital camera, a web camera and a CCD/CMOS camera.

9. The system for providing wired/wireless contents and information as recited in claim 6,

wherein the mobile platform is one of a web browser such as WAP, UP and ME (Mobile Explorer), a VOD player, a platform such as BREW, WITOP and WIPI, an OS (Operating System) such as Palm OS, Symbian OS and Windows CE, and Virtual Machine.

10. The system for providing wired/wireless contents and information as recited in claim 7,

wherein the mobile platform is one of a web browser such as WAP, UP and ME (Mobile Explorer), a VOD player, a platform such as BREW, WITOP and WIPI, an OS (Operating System) such as Palm OS, Symbian OS and Windows CE, and Virtual Machine.

11. The system for providing wired/wireless contents and information as in any one of claims 1 to 3,

wherein the operating agent platform comprises:

a switching gateway for receiving the code values from the user device and distributing the received code information to platforms of each communication service provider;

a contents marketplace for performing functions of issuing a code and searching contents so that an off-line interested party module can easily select data associated with the code engraved in an off-line medium by searching contents of an on-line interested party module on a web base; and

a registration administration module for performing an operating agent support function.

12. The system for providing wired/wireless contents and information as recited in claim 11,

wherein the contents marketplace further comprises an internal function module for performing payment and billing, statistic, management and operating maintenance of an interested party.

13. The system for providing wired/wireless contents and information as in any one of claims 1 to 3,

a switching database for interworking with a switching gateway of the operating agent platform and storing and recording various resources such as code values and contents URL;

a switching database module for administrating the switching database;

a log database for recording and storing the use state of the switching database therein; and

at least one contents index database for providing all the contents that can be connected to the code so that the contents can be searched, whereby an off-line interested party can select contents that will be connected to the code.

14. The system for providing wired/wireless contents and information as recited in claim 14,

wherein the communication entity platform further comprises a user fee payment module for paying the rent during a predetermined period by the user by using a user log.

15. The system for providing wired/wireless contents and information as recited in claim 13,

wherein the communication entity platform further comprises a CRM module for performing various CRM by using user log and demographic data.

16. The system for providing wired/wireless contents and information as recited in claim 2, wherein the communication entity platform comprises:

a switching database for recording and storing various resources such as code values and contents URL;

a contents marketplace for performing functions of issuing a code and searching contents so that an off-line interested party module can easily select data associated with the code engraved in an off-line medium by searching contents of an on-line interested party module on a web base;

a registration administration module for performing an operating agent support function;

a switching database management module for administrating the switching database;

a log database for recording and storing the use state of the switching database; and

at least one contents index database for providing all the contents that can be connected to the code so that the contents can be searched, whereby an off-line interested party can select contents that will be connected to the code.

17. The system for providing wired/wireless contents and information as recited in claim 16,

wherein the contents marketplace further comprises an internal function module for performing payment and billing, statistic, management and operating maintenance of an interested party.

18. The system for providing wired/wireless contents and information as recited in claim 16,

wherein the communication entity platform further comprises a user fee payment module for paying the rent during a predetermined period by the user by using a user log.

19. The system for providing wired/wireless contents and information as recited in claim 16,

wherein the communication entity platform further comprises a CRM module for performing various CRM by using user logs and demographic data.

20. The system for providing wired/wireless contents and information as in any one of claims 1 to 3, wherein the on-line interested party module comprises:

a contents register for registering and administrating resources corresponding to information on a variety of contents and commerce, which will be provided to the user, in association with a contents index database of the communication entity platform; and



a plurality of contents that are provided to the user when the user transmits resources corresponding to the code.

21. The system for providing wired/wireless contents and information as recited in claim 20,

wherein the on-line interested party module comprises an internal module of the communication entity platform.

22. The system for providing wired/wireless contents and information as in any one of claims 1 to 3, wherein the off-line interested party module comprises:

a code register for searching a variety of contents and commerce data in association with the contents marketplace so that data to be associated with the code can be selected; and

an encoding unit for receiving code values from the code register to output a code image corresponding to the code values so that the code image can be used in a printing software.

23. The system for providing wired/wireless contents and information as recited in claim 22,

wherein the off-line interested party module comprises either the internal module of the communication entity platform or an internal module of an operating agent platform.

24. The system for providing wired/wireless contents and information as in any one of claims 1 to 3,

wherein the on-line interested party module and the off-line interested party module are integrally operated.

25. The system for providing wired/wireless contents and information as in any one of claims 1 to 3,

wherein servers of the platform system are disposed dually.

26. The system for providing wired/wireless contents and information as in any one of claims 1 to 3,

wherein the user device associated with the system is a wireless portable device such as a PC, a PDA and a cellular phone.

27. The system for providing wired/wireless contents and information as in any one of claims 1 to 3,

wherein the user device further comprises an authentication module for authenticating a service fee payment, and

the on-line interested party module further comprises a payment system for confirming authentication information received from the authentication module of the user device and transmitting payment approval information to the authentication module of the user device.

28. The system for providing wired/wireless contents and information as recited in claim 27,

wherein the authentication module of the user device is a built-in chip shape of the user device.

29. The system for providing wired/wireless contents and information as recited in claim 13,

wherein the switching database records and stores therein resources such as contents URL, which will be provided on the basis of the code values, and product information and service information on codes.

30. The system for providing wired/wireless contents and information as recited in claim 16,

wherein the switching database records and stores therein resources such as contents URL, which will be provided on the basis of the code values, and product information and service information on codes.

31. A method for serving contents and information using codes, comprising:

a code input step of inputting the codes to a user device;

a code value transmission step of transmitting received code values to a corresponding communication entity platform;

a resources transmission step of allowing a switching database of the communication entity platform to resend resources corresponding to the received code values to the user device; and

a contents and service providing step of transmitting the received resources to the user device and then requesting contents corresponding to the resources and various services.

32. The method as recited in claim 31,

wherein the code input step of inputting the code to the user device is one of modes for directly inputting the code values using a character and number input means of the user device, or reading characters using a camera.

33. The method as recited in claim 31, wherein the code input step of inputting the codes to the user device comprises:

a code image input step of inputting an image using an image input means of the user device; and

a code value extraction step of decoding the code image recognized in the code image input step.

34. The method as recited in claim 31, wherein the code value transmission step further comprises the steps of:

transmitting the code values to an interface unit of the user device and then transmitting the code value from the interface unit to a switching gateway; and

transmitting the code values received from the switching gateway to a switching database of a corresponding communication entity platform.

35. The method as recited in claim 31, wherein the contents providing step further comprises the steps of:

receiving resources from the interface unit of the user device and transferring the resources to a mobile platform of a user device such as a web browser;

transferring the resources received from the mobile platform of the user device to an on-line interested party module or a common web page, thus requesting contents and various information corresponding to the received resources; and

transmitting the contents and various information for the request from the on-line interested party module or the common web page to the user device.

36. The method as recited in claim 31, further comprising the steps of:  
transferring information on the use of services by the user during a predetermined period from the communication entity log database to a user fee payment module; and

allowing a payment system to demand payment for the use of the services during the predetermined period.

37. The method as recited in claim 31, further comprising a statistic processing process of requesting and analyzing log record information of a user during a predetermined period by using a log database.

38. A method for serving contents and information using codes, comprising:  
a contents registration step of registering contents, which will be provided by an on-line interested party, to a contents index database;

a code value issue step of issuing a code value that will be connected to the registered contents; and

a database registration step of registering resources such as the code value issued in the code values issue step and contents in a database.

39. The method as recited in claim 38, wherein the code value issue step further comprises:

a contents search step of searching contents to be connected to codes;

a contents selection step of selecting results searched in the contents search step; and

a step of registering the results in a communication entity corresponding to the selected contents.

40. The method as recited in claim 38, further comprising:

an encoding step of transferring the registered code values to an off-line interested party, which then encodes the code values; and

a code image insertion step of inserting the encoded code into an off-line medium that prints an off-line medium.

41. A user device used in a system for providing wired/wireless contents and information using a code according to any one of claims 1 to 3, comprising:

a code input means for inputting code values;

an interface unit for transmitting the code values received from the code input means to an operating agent platform or a communication entity platform, and receiving resources corresponding to the code values; and

a mobile platform for reproducing a variety of contents and implementing an application driven by a code.

42. The user device as recited in claim 41, wherein the code input means is either a keypad for directly inputting code values such as characters, numbers and symbols, or a camera for reading characters.

43. The user device as recited in claim 41, wherein the character input means is an image input means for capturing a code image, and further comprises a decoding unit for extracting code values of the code inputted to the image input means.

44. A communication entity platform user device used in a system for providing wired/wireless contents and information using a code according to any one of claims 1 to 3, comprising:

a switching database for recording and storing data therein, which become various resources such as code values and contents URL, in association with the outside;

a switching database management module for administrating the switching database;

a log database for recording and storing the use state of the switching database;  
and

at least one contents index databases for providing all the contents that can be connected to the code so that the contents can be searched, whereby an off-line interested party can select contents that will be connected to the code.

45. The communication entity platform as recited in claim 44, further comprising a user fee payment module for paying the rent during a predetermined period by the user by using the user log.

46. The communication entity platform as recited in claim 44, further comprising a CRM module for performing a variety of CRM by using the user log and demographic data.

47. An operating agent platform used in a system for providing contents and information using a code according to any one of claims 1 to 3, comprising:

a switching gateway for receiving the code values from the user device and distributing the received code information to platforms of each communication service provider;

a contents marketplace for performing functions of issuing a code and searching contents so that an off-line interested party module can easily select data associated with the code engraved in an off-line medium by searching contents of an on-line interested party module on a web base; and

a registration administration module for performing an operating agent support function.

48. An on-line interested party module used in a system for providing contents and information using a code according to any one of claims 1 to 3, comprising:

a contents register for registering and administrating resources corresponding to information on a variety of contents and commerce, which will be provided to the user, in association with a contents index database of the communication entity platform; and

a plurality of contents that are provided to the user when the user transmits resources corresponding to the code.

49. The on-line interested party module as recited in claim 48, wherein the on-line interested party module is composed of an internal module of a communication entity platform.



50. An off-line interested party module used in a system for providing wired/wireless contents and information using a code according to any one of claims 1 to 3, comprising:

a code register for searching a variety of contents and commerce data in association with the contents marketplace so that data to be associated with the code can be selected; and

an encoding unit for receiving code values from the code register to output a code image corresponding to the code values so that the code image can be used in a printing software.

51. The on-line interested party module as recited in claim 50, wherein the off-line interested party module is either an internal module of the communication entity platform or an internal module of the operating agent platform.